

## **REMARKS**

The Applicants have carefully reviewed the Notice of Noncompliant Amendment mailed October 4, 2007 and offer the following remarks to accompany the above amendments.

Claim 1 was rejected under 35 U.S.C. § 102(b) as being anticipated by “Use of the acousto-optic tunable filter for optical spectrum analysis and EDFA power equalization in WDM systems,” by *M.L. Heston et al.*, OFC '96 Technical Digest, 1996, at pages 249-250 (hereinafter “*Heston*”). The Applicants respectfully traverse the rejection.

According to Chapter 2131 of the M.P.E.P., in order to anticipate a claim under 35 U.S.C. § 102, “the reference must teach every element of the claim.” The Applicants respectfully submit that *Heston* does not disclose each and every element recited in claim 1. Accordingly, *Heston* cannot anticipate this claim. More specifically, claim 1 recites a method of measuring optical signal power comprising, among other features, “receiving optical signals at a wavelength select switch.” The Applicants respectfully submit that *Heston* does not disclose a wavelength select switch which selectively directs optical signals. In maintaining the rejection, the Patent Office states that *Heston* discloses that an “equalizing stage of AOTF functions as a wavelength addressable analog switch.”<sup>1</sup> While *Heston* does disclose that the AOTF has a wavelength addressable analog switch, the wavelength addressable analog switch does not selectively direct optical signals. Instead, the wavelength addressable analog switch depletes a wavelength channel by an amount of power required to equalize output powers.<sup>2</sup> Since *Heston* does not disclose a wavelength select switch, *Heston* cannot disclose receiving an optical signal at a wavelength select switch.

Claim 1 also recites “passing a subset of the optical signals comprised of more than one individual wavelength through the wavelength select switch at substantially the same time to a power meter.” As *Heston* does not disclose a wavelength select switch which selectively directs optical signals, it follows that *Heston* cannot disclose passing a subset of optical signals through a wavelength select switch at substantially the same time to a power meter.

In addition, claim 1 has been amended to recite “controlling an optical amplifier in accordance with the power of the optical signals to regulate optical power of the optical signals.” The Applicants submit that *Heston* does not disclose the feature of controlling an optical

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<sup>1</sup> See Office Action mailed May 4, 2007, page 8.

<sup>2</sup> See *Heston*, p. 250, first column, lines 4-7.

amplifier in accordance with a power of an optical signal in order to regulate optical power of optical signals. For this reason and the reasons noted above, claim 1 is patentable over *Heston* and the Applicants request that the rejection be withdrawn.

Claims 1, 3, 7, 12, 14, 17, 18, 24, and 25 were rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent Application Publication No. 2002/0176658 A1 to *Prohaska* (hereinafter “*Prohaska*”) in view of U.S. Patent No. 5,521,701 to *Felger et al.* (hereinafter “*Felger*”). The Applicants respectfully traverse the rejection.

According to Chapter 2143.03 of the M.P.E.P., in order to “establish *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art.” The Applicants submit that neither *Prohaska* nor *Felger*, either alone or in combination, discloses or suggests all the features recited in claims 1, 3, 7, 12, 14, 17, 18, 24, and 25. In particular, claim 1 has been amended to recite a method of measuring optical signal power comprising, among other features, “controlling an optical amplifier in accordance with the power of the optical signals to regulate optical power of the optical signals.” The Applicants submit that neither *Prohaska* nor *Felger*, either alone or in combination, discloses or suggests the feature of controlling an optical amplifier in accordance with a power of optical signals in order to regulate optical power of an optical signal. Accordingly, claim 1 is patentable over the cited references and the Applicants request that the rejection be withdrawn. Similarly, claims 3, 7, and 24, which depend from claim 1, are patentable for at least the same reasons along with the novel features recited therein.

Claim 12 has been amended to recite an apparatus for measuring optical signal power comprising, among other features, “a controller which controls an optical amplifier by generating a control signal for an optical amplifier in accordance with the power of the optical signals to regulate optical power of the optical signals.” The Applicants submit that neither *Prohaska* nor *Felger*, either alone or in combination, discloses or suggests a controller which controls an optical amplifier by generating a control signal in accordance with a power of optical signals to regulate optical power of the optical signals. As such, claim 12 is patentable over the cited references and the Applicants request that the rejection be withdrawn. Likewise, claims 14, 17, 18, and 25, which depend from claim 12, are patentable for at least the same reasons along with the novel features recited therein.

Claims 1, 3-5, 11, 12, 14-17, 24, and 25 were rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,873,795 B1 to *Sugaya* (hereinafter “*Sugaya*”) in view of *Prohaska* and further in view of *Felger*. The Applicants respectfully traverse the rejection.

As noted above, claim 1 has been amended to recite a method of measuring optical signal power comprising, among other features, “controlling an optical amplifier in accordance with the power of the optical signals to regulate optical power of the optical signals.” The Applicants submit that none of the references, either alone or in combination, disclose or suggest the feature of controlling an optical amplifier in accordance with a power of optical signals in order to regulate optical power of an optical signal. While *Sugaya* does disclose controlling a power of output light by controlling a single wave for which power is maximum, *Sugaya* does not disclose that a power of the output light is controlled by controlling an optical amplifier in accordance with a power of optical signals.<sup>3</sup> *Sugaya* also discloses a correction control unit which inputs a feedback signal to an excitation light source 29.<sup>4</sup> However, *Sugaya* does not disclose that the correction control unit inputs a feedback signal to an optical amplifier. Moreover, as discussed above, neither *Prohaska* nor *Felger*, either alone or in combination, discloses or suggests this feature. Therefore, claim 1 is patentable over the cited references and the Applicants request that the rejection be withdrawn. Similarly, claims 3-5, 11, and 24, which depend from claim 1, are patentable for at least the same reasons along with the novel features recited therein.

Claim 12 has been amended to recite an apparatus for measuring optical signal power comprising, among other features, “a controller which controls an optical amplifier by generating a control signal for an optical amplifier in accordance with the power of the optical signals to regulate optical power of the optical signals.” As detailed above, none of the references, either alone or in combination, disclose or suggest a controller which controls an optical amplifier by generating a control signal in accordance with a power of optical signals to regulate optical power of the optical signals. As such, claim 12 is patentable over the cited references and the Applicants request that the rejection be withdrawn. Likewise, claims 14-17 and 25, which depend from claim 12, are patentable for at least the same reasons along with the novel features recited therein.

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<sup>3</sup> See *Sugaya*, col. 3, line 67 through col. 4, line 2.

<sup>4</sup> See *Sugaya*, col. 12, lines 56-58.

Claim 10 was rejected under 35 U.S.C. § 103(a) as being unpatentable over *Sugaya* in view of *Prohaska* and *Felger* and further in view of U.S. Patent No. 4,903,339 to *Solomon* (hereinafter "*Solomon*"). The Applicants respectfully traverse the rejection. As detailed above, claim 1, the base claim from which claim 10 depends, is patentable over *Sugaya* in view of *Prohaska* and *Felger*. Moreover, *Solomon* fails to overcome the previously noted shortcomings of *Sugaya*, *Prohaska*, and *Felger*. Thus, claim 10 is patentable over the cited references and the Applicants request that the rejection be withdrawn.

Claims 7 and 18 were rejected under 35 U.S.C. § 103(a) as being unpatentable over *Sugaya* in view of *Prohaska* and *Felger* and further in view of U.S. Patent No. 5,986,782 to *Alexander et al.* (hereinafter "*Alexander*"). The Applicants respectfully traverse the rejection. As discussed above, claims 1 and 12, the base claims from which claims 7 and 18 respectively depend, are patentable over *Sugaya* in view of *Prohaska* and *Felger*. In addition, *Alexander* does not address the previously noted deficiencies of *Sugaya*, *Prohaska*, and *Felger*. Thus, claims 7 and 18 are patentable over the cited references and the Applicants request that the rejection be withdrawn.

The present application is now in a condition for allowance and such action is respectfully requested. The Examiner is encouraged to contact the Applicants' representative regarding any remaining issues in an effort to expedite allowance and issuance of the present application.

Respectfully submitted,

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